



Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Purchasing Receipts

Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Pas Dur
PO038929 MEC002-VU	3	1	Net 30	M7075T6S1.000X5.000	7075-T6 Sheet 1" Thick Plate X 5" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				12	2/23/2018	12		S044630	Stock	2/22/2018	\$ 21.75 / ft	0	
	4			M7075T6S1.250X2.750	7075-T6S1.250" X2.750" Cut From Plate : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft						12		S044631	Stock	2/22/2018	\$ 34.30 / ft	0	
	5			M7075T6S6.000X0.250	7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				36		36		S044632	Stock	2/22/2018	\$ 20.75 / ft	0	
	7			M7075T6S0.375X6.000	7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft				12		12		S044633	Stock	2/22/2018	\$ 25.68 / ft	0	
	9			M7075T6S2.000X0.750	7075-T6S Sheet 2" Thick Plate X 0.75" Wide : MAT'L 7075-T6/T62 ALUMINUM SHEET SPECS QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR PER ASTM B209 MAT'L 7075-T6/T62 ALCLAD ALUMINUM SHEET SPECS QQ-A-250/13 OR AMS-QQ-A-250/13 OR AMS 4049 OR PER ASTM B209 receive ft						12		S044634	Stock	2/22/2018	\$ 18.47 / ft	0	
	12			M7075T6S1.250X2.000	7075-T6 Sheet 1.250" X 2.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft						12		S044635	Stock	2/22/2018	\$ 20.12 / ft	0	

No	Supplier	Line Item No	Rel No	Terms	Purchased Item	Description	For Part No	Project	Equipment ID	Order Qty	Due Date	Received Quantity	Accounting Job No	Serial No	Status	Receive Date	Price/Unit	Aging Days	Pas Du
		13			M7075T6S0.375X5.000	M7075T6S0.375 X 5.000 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft						12		S044636	Stock	2/22/2018	\$ 18.10 / ft	0	
Total:										108		108							

Plex 2/22/2018 1:49 PM Dart,Dubois,Pascal



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A. M. Castle & Co.

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Page 1 of 1


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Shipment No: 3519256

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 21-FEB-18	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOULIN	BOL No 3519256-2		

Shipment Details		Final Destination Branch - TOR	
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Order No 5033891	Line No 1	Item No 752188.MO	Description 1.0000.PL.7075.T651.ALUMINUM.51.48.5000.144.5000 CUT 2SIDED TO 5 IN () .1250/- .0000 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com	
Purchase Order No 38929	Part Number		Ordered Qty 1.00 PCS	Invoice Qty 1.00 PCS
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #'S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS				

Delivery No. 121613058	Mill/Source CONSTELLUM ROLLED PRODUCTS	Heat Number 	Mech Id 1	PCS 1	Width (IN)	Length (IN)	Shipped Qty(LBS) 75.2348
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We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description for credit.		Reviewed by Authorized Castle Metals Representative	
Date Printed: 21-FEB-2018 02:44:32 PM		Date: FEB 21 2018	Name:



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Page 1 of 1


Shipment No: 3519256

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 21-FEB-18	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier MANITOULIN	BOL No 3519256-2			

Shipment Details

Final Destination Branch - TOR

Order No 5033891	Line No 2	Item No 752114.MO	Description 1.2500.PL.7075.T651.ALUMINUM.US1.48.5000.144.5000 CUT 2SIDED TO 2.75 IN () .1250/- .0000 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com
Purchase Order No 38929	Part Number	Ordered Qty 1.00 PCS	Invoice Qty 1.00 PCS
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS			

Delivery No. 121613058	Mill/Source CONSTELLUM ROLLED PRODUCTS	Heat Number 	Mech Id	PCS 1	Width (IN)	Length (IN)	Shipped Qty(LBS) 51.4127
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We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any and all conditions forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived when made by the customer. Material returned by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative

Date: _____ Name: _____

Date Printed: 21-FEB-2018 02:44:32 PM

FEB 21 2018



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Page 1 of 1

Shipment No: 3519256

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN	Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA
Date Shipped 21-FEB-18	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier MANITOU LIN	BOL No 3519256-2

Shipment Details Final Destination Branch - TOR

Order No 5033891	Line No 3	Item No 750023.MO	Description 0.2500 PL. 7075.T651 ALUMINUM. 48.5000. 144.5000 CUT 2SIDED TO 6 IN (4 .1250/- .0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com
Purchase Order No 38929	Part Number	Ordered Qty 3.00 PCS	Invoice Qty 3.00 PCS
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS			
Delivery No. 121613058	Mill/Source KAISER ALUMINUM	Heat Number  245524B11	Mech Id 3
		Width (IN)	Length (IN)
			Shipped Qty(LBS) 68.5650

We hereby certify that material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including the following: (1) Material cut to the correct size (2) Material cut by the customer cannot be returned for credit.	
Reviewed by Authorized Castle Metals Representative:	Name: FEB 21 2018

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Page 1 of 1

Shipment No: 3519256

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 21-FEB-18		F.O.B. ORIGIN		Freight Terms Prepaid		Carrier MANITOULIN	
						BOL No 3519256-2	

Shipment Details Final Destination Branch - TOR

Order No 5033891	Line No 4	Item No 750067.MO	Description 0.3750 PL. 7075 T651 ALUMINUM 48.5000. 144.5000 CUT & SIZED TO 6 IN (+ .1250/- .0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com				
Purchase Order No 38929		Part Number		Ordered Qty 1.00 PCS	Invoice Qty 1.00 PCS		
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
Delivery No. 121613058	Mill/Source KAISER ALUMINUM	Heat Number  245158111	Mech Id	PCS 1	Width (IN)	Length (IN)	Shipped Qty (LBS) 34.0636

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including the test reports are on file subject to examination. All claims for defective material are void unless made within 60 days of the shipment. Material cut to the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative.

FEB 21 2018

Name:

Date Printed: 21-FEB-2018 02:44:32 PM



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Shipment No: 3519256

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 21-FEB-18	F.O.B. ORIGIN	Freight Terms Prepaid	Carrier MANITOULIN	BOL No 3519256-2			

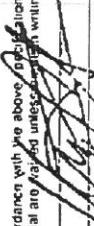
Shipment Details

Order No 5033891		Line No 5	Item No 750157.MO	Description 0.7500 PL. 7075. T651 ALUMINUM. US1. 48.5000. 144.5000 CUT 2 SIDED TO 2 IN (L. 1250/- .0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com
Purchase Order No 38929	Part Number	Ordered Qty 1.00 PCS	Invoice Qty 1.00 PCS	

Details
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY
ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #S
Email P/s and certs to: clavoie@dartaero.com
END USER: DART AEROSPACE
END USE: COMMERCIAL AIRCRAFT PARTS

Delivery No. 121613058	Mill/Source KAISER ALUMINUM	Heat Number  24750689	Mech Id	PCS 1	Width (IN)	Length (IN)	Shipped Qty (LBS) 22.6215
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We hereby certify the material covered by this certification conforms in accordance with the above requirements and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are void unless accompanied by written notice to A. M. Castle & Co. within 90 days of the shipment. Material cut to the correct size, or material not cut to the correct size, the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative:  **DATE** FEB 21 2018

Date Printed: 21-FEB-2018 02:44:32 PM



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A. M. Castle & Co.

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CERTIFICATE OF CONFORMANCE

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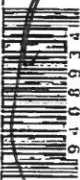
Shipment No: 3519256

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA			
Date Shipped 21-FEB-18		F.O.B. ORIGIN		Freight Terms Prepaid		Carrier MANITOU LIN		BOL No 3519256-2	

Shipment Details

Order No 5033891		Line No 6	Item No 752114.MO	Description 1.2500.PL.7075.T651 ALUMINUM.US1.48.5000.144.5000 CUT-2SIDED TO 2 IN () 1250/- .0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com	
Purchase Order No 38929		Part Number		Ordered Qty 1.00 PCS	Invoice Qty 1.00 PCS

Details
ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY
ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #S
Email P/s and certs to: clavoie@dartaero.com
END USER: DART AEROSPACE
END USE: COMMERCIAL AIRCRAFT PARTS

Delivery No. 121613058	Mill/Source CONSTELLUM ROLLED PRODUCTS	Heat Number 	Mech Id	PCS 1	Width (IN)	Length (IN)	Shipped Qty(LBS) 37.3911
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We hereby certify: the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material. All claims for defective material are waived except for material returned to the supplier within 60 days of the shipment. Material cut to the customer's specifications forming a part of the description for credit.	
Reviewed by Authorized Castle Metals Representative:	Date: FEB 21 2018

Date Printed: 21-FEB-2018 02:44:32 PM

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A. M. Castle & Co.


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Page 1 of 1


Shipment No: 3519256

Ship From: A. M. CASTLE & CO. 2150 ARGENTIA ROAD MISSISSAUGA, ON L5N 2K7 CAN		Sold To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA		Ship To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CAN		Deliver To: DART AEROSPACE LTD 1270 ABERDEEN HAWKESBURY, ON K6A 1K7 CA	
Date Shipped 21-FEB-18	F.O.B. ORIGIN	Freight Terms Prepaid		Carrier MANITOU LIN	BOL No 3519256-2		

Shipment Details		Final Destination Branch - TOR	
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Order No 5033891	Line No 7	Item No 750067.MO	Description 0.3750.PL.7075.T651 ALUMINUM.48.5000.144.5000 CUT 2 SIDED TO 5 IN (+ .1250/- .0000 IN) X 144.5 IN () - ALUMINUM PLATE SAW SPECIFICATIONS: AMS-QQ-A-250/12 Email P/s and certs to: clavoie@dartaero.com				
Purchase Order No 38929	Part Number		Ordered Qty 1.00 PCS	Invoice Qty 1.00 PCS			
Details ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX: HEAT #S Email P/s and certs to: clavoie@dartaero.com END USER: DART AEROSPACE END USE: COMMERCIAL AIRCRAFT PARTS							
Delivery No. 121613058	Mill/Source KAISER ALUMINUM	Heat Number  245158611	Mech Id	PCS 1	Width (IN)	Length (IN)	Shipped Qty(LBS) 28.3863

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are subject to written notice in writing to A. M. Castle & Co. within 60 days of the shipment. Material cut to the correct size or material cut by the customer cannot be returned for credit.

Reviewed by Authorized Castle Metals Representative. 

Date:  Date:  Name: 

Date Printed: 21-FEB-2018 02:44:32 PM

FEB 21 2018

A. M. CASTLE METALS



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER **PO038929**

Supplier: MEC002-VU
Metaux Castle
P.O. Box 4090 Stn A
Toronto
ON
M5W OE9 Canada

PO No: PO038929
PO Date: 2/1/18
Due Date: 2/26/18
Purchase Order Revision:
Revision Date:
Ship-To Contact: Phone:

E-MAILED
FEB 02 2018

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pynt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
1	M7075T73B4.000x4.000		7075-T73 Bar 4.0 X 4.0 Grain Direction Along 4" Wide : MATERIAL: 7075-T73 OR 7075- T7351/T73510/T73511 BAR PER AMS-QQ-A- 200/11 OR AMS-QQ-A- 225/9 OR AMS 4124 OR AMS-QQ-A-250/12 OR AMS 4078 receive ft	Firmed	2/26/18	48 ft	0 ft 48 ft	48 ft	\$107.58333/ft DAS 11 9-89 FEB 16 2018	\$5,164.00
Line Item Note 12 PCS CUT AT 4 FT LONG										
2	M17-4-H1150-R4.000		17-4 SS H1150 Round Bar 4.000" : MATERIAL: 17-4 PH CONDITION H1150 receive ft	Firmed	2/26/18	6 ft	0 ft 6 ft	6 ft	\$145.75/ft FEB 13 2018 DAS 11 9-89	\$874.50
3	M7075T6S1.000X5.000		7075-T6 Sheet 1" Thick Plate X 5" Wide : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft 12'	12 ft	\$21.75/ft FEB 22 2018 DAS 11 9-89	\$261.00
4	M7075T6S1.250X2.750		M7075T6S1.250" X2.750" Cut From Plate : MATERIAL: 7075- T6/T62 ALUMINUM SHEET AS PER QQ-A- 250/12 OR AMS-QQ-A- 250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft 12	12 ft	\$34.30/ft FEB 22 2018 DAS 11 9-89	\$411.60

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
5	M7075T6S6.000X0.250		7075-T6S Sheet 6" Thick Plate X 0.25" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	36 ft	0 ft 36'	36 ft	\$20.75/ft	\$747.00 FEB 22 2018 DAS 11 9-89
6	M7075T6S7.000X2.000		7075-T6S Sheet 7" Thick Plate X 2" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	48 ft	0 ft 5 PCS x 9' 45 ft	48 ft	\$78.52/ft	\$3,768.96 FEB 16 2018 DAS 11 9-89
7	M7075T6S0.375X6.000		7075-T6S Sheet .375" Thick Plate X 6" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft 12'	12 ft	\$25.68/ft	\$308.16 DAS 11 9-89 FEB 22 2018
8	M7075T6B1.000X0.250		7075-T6 Bar 1.000' X 0.250" : MATERIAL: 7075-T6 OR T651/T6510/T6511/T62 ALUMINUM BAR AS PER AMS-QQ-A-225/9 OR AMS 4122/4123/4186/4187 OR PER AMS-QQ-A-200/11 receive ft	Firmed	2/26/18	12 ft	0 ft 12 ft 30	12 ft	\$9.92/ft	\$119.04
9	M7075T6S2.000X0.750		7075-T6S Sheet 2" Thick Plate X 0.75" Wide : MAT'L 7075-T6/T62 ALUMINUM SHEET SPECS QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR PER ASTM B209 MAT'L 7075-T6/T62 ALCLAD ALUMINUM SHEET SPECS QQ-A-250/13 OR AMS-QQ-A-250/13 OR AMS 4049 OR PER ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft 12'	12 ft	\$18.47/ft	\$221.64 FEB 22 2018 DAS 11 9-89

Items										
Line Item	Part	Supplier Part No	Description	Status	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (USD)	Extended Price
10	M7075T6S4.500X5.000		7075-T6S Sheet 4.500" Thick X 5.000" Wide : MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	6.125 ft	0 ft 9ft 48.5 inch x 2	6 ft	\$182.19/ft	\$1,115.91
11	M7075T6S1.000X2.500		7075-T6S Sheet 1" Thick Plate X 2.5" Wide : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft 12ft	12 ft	\$30.42/ft	\$365.04
12	M7075T6S1.250X2.000		7075-T6 Sheet 1.250" X 2.000" : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft 12'	12 ft	\$20.12/ft	\$241.44
13	M7075T6S0.375X5.000		M7075T6S0.375 X 5.000 : MATERIAL: 7075-T6/T62 ALUMINUM SHEET AS PER QQ-A-250/12 OR AMS-QQ-A-250/12 OR AMS 4045 OR ASTM B209 receive ft	Firmed	2/26/18	12 ft	0 ft 12'	12 ft	\$18.10/ft	\$217.20
Grand Total:										\$13,815.49

Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)
A026 certification of material conformance
A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 2/1/18 10:20 AM dart.lacelle.linda

Chantal Lavoie

From: Desbiens, Marc <mdesbien@amcastle.com>
Sent: Monday, January 22, 2018 1:34 PM
To: Chantal Lavoie
Subject: RE: quote

Good Morning Chantal,
price an delivery on mat'l.

7075t73 bar 4" x 4" x 12 ft cut in section of 4 ft grain direction along 4" ✓
Offer plate \$ 1291.00 Lot 2-3 weeks

17-4 h1150 round bar 4" x 6 ft
\$ 145.75 FT 8-9 days

Bar or sheet acceptable

7075t6 Sheet 1" x 5" x 12 ft \$ 21.75 Ft 2-3 weeks ✓
7075t6 sheet 1.250" x 2.750" x 12 ft \$ 34.30 Ft 2-3 weeks ✓
7075t6 sheet 6" x 0.250" x 36 ft \$ 20.75 Ft 2-3 weeks ✓
7075t6 sheet 7" x 2" x 48 ft \$ 78.52 Ft 2-3 weeks ✓
7075t6 sheet 0.375" x 6" x 12 ft \$ 25.68 Ft 2-3 weeks ✓
7075t6 sheet 1" x 0.250" x 12 ft (2 pcs 6ft) \$ 9.92 Ft 2-3 weeks ✓
7075t6 sheet 2" x 0.750" x 12 ft \$ 18.47 Ft 2-3 weeks ✓
7075t6 sheet 4.5" x 5" x 8 ft cut in section 4 ft 50.125" Long \$ 182.19 Ft 2-3 weeks ✓
7075t6 sheet 1" x 2.5" x 12 ft \$ 30.42 Ft 2-3 weeks ✓
7075t6 sheet 1.250" x 2" x 12 ft \$ 20.12 Ft 2-3 weeks ✓
7075t6 sheet 0.375" x 5" x 12 ft \$ 18.10 Ft 2-3 weeks ✓

~~303 bar 1" x 3" x 12 ft \$ 107.48 FT 2 weeks~~
~~304 bar 0.750" x 2.5" x 12 ft \$ 24.62 FT 8-9 days~~
~~304 bar 0.500" x 2.5" x 12 ft \$ 19.93 FT 8-9 days~~
~~Round bar bronze 2.375" x 1 ft (63000 spec's) Regret~~

Thanks

Marc Desbiens
Inside sales representative
Castle Metals, Montreal, QC
Direct line 514-795-8176
1-800-806-6660 ext 52226
Fax # 1-855-892-6370
Customized Supply Chain Solutions for Your Metal Needs

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70257650375X5.000

PO / BATCH NO.: 038929/5044636

DATE: FEB 22 2018

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375
 THICKNESS RECEIVED: 0.375
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	AMS-QC-A-230/12
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat # 245158B1
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAF</u>		SIGNED OFF BY: _____	
DATE: <u>9-8 FEB 22 2018</u>		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

△/B PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
~~OR AMS 4048~~
OR ASTM B209

OR

△/B PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR AMS 4048 / 4049
OR ASTM B209

△/B PART NUMBER: M7075T6S | TTT | X | W.WWW |
| THK | | WIDTH |

△/B WHERE ".TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)
EG. 0.063" THICK SHEET = M7075T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

△/B PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED
2017 JUN 19
ECN 17-574

APPROVED

B	ADD REF TO PLATE: T651 TEMPER, AMS 4048.	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DG		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
TITLE 7075-T6 SHEET/PLATE SPEC			
REV. B			
SHEET 1 OF 1			
SCALE NTS			
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70254651.250X2.000

PO / BATCH NO.: 038929/5044635

DATE: FEB 22 2018

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250
 THICKNESS RECEIVED: 1.250
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	<u>Ans QG-A-250/12</u>
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	<u>Heat # 9408934</u>
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u> DATE: <u>FEB 22 2018</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
SPECIFICATION: ~~QQ-A-250/12~~ OR AMS-QQ-A-250/12
~~OR AMS 4048~~
OR ASTM B209

OR

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR AMS 4048 / 4049
OR ASTM B209

△ PART NUMBER: M7075T6S | TTT | X | W.WWW |
| THK | | WIDTH |

△ WHERE "TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

△ PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED
2017 JUN 19
ECN 17-574

APPROVED

B	ADD. REF. TO PLATE: T651 TEMPER, AMS 4048, OPTIONAL WIDTH DIM (PART 149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
TITLE 7075-T6 SHEET/PLATE SPEC			
REV. B			
SHEET 1 OF 1			
SCALE NTS			
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075-1652-000X0.750
 DATE: FEB 22 2018

PO / BATCH NO.: 038929/5044634

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 121
 QUANTITY INSPECTED: 121
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.750
 THICKNESS RECEIVED: 0.750
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	QC-A-250/12
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat # 247506B9
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION	ENGINEERING SIGNOFF (if required)
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 FEB 22 2018</u>	SIGNED OFF BY: _____ DATE: _____

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
OR AMS-4049
OR ASTM B209

OR

PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR AMS 4048 / 4049
OR ASTM B209

PART NUMBER: M7075T6S | TTT | X | W | WWW |
| THK | | WIDTH |

WHERE "TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19
ECN 17-574

B	ADD. REF. TO "PLATE" T651 TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CART-148)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
REV. B SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC			
SCALE NTS			
DATE 17.05.05			
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APPROVED

MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7075 T6 50.375x6.000
 DATE: FEB 22 2018

PO / BATCH NO.: 038929/5044633

MATERIAL CERT REC'D: Yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.375
 THICKNESS RECEIVED: 0.375
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	QA-A-290/12
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Heat # 24515881
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u>	SIGNED OFF BY: _____		
DATE: <u>9-8 FEB 22 2018</u>			
DATE: _____		DATE: _____	

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
OR AMS-T651
OR ASTM B209

OR

△ PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR AMS 4048 / 4049
OR ASTM B209

△ PART NUMBER: M7075T6S | TTT | X | W.WWW |
| THK | | WIDTH |

△ WHERE "TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

△ PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19
ECN 17-574

APPROVED

B	ADD. REF. TO "PLATE", "T651", TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CARB-148)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
REV. B SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC NTS			
SCALE			
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70751656.000X0.250
 DATE: FEB 22 2018

PO / BATCH NO.: 038929/5044632

MATERIAL CERT REC'D: YES
 QUANTITY RECEIVED: 361
 QUANTITY INSPECTED: 361
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 0.250
 THICKNESS RECEIVED: 0.250
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	GG A-250/12
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat # 24552484
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89 FEB 22 2018</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
 OR ~~AMS 4048~~
 OR ASTM B209

OR

PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
 OR AMS 4048 / 4049
 OR ASTM B209

PART NUMBER:

M7075T6S | TTT | X | W.WWWW |
 | THK | | WIDTH |

PREFERRED SIZE:
 WHERE "TTT" = THICKNESS (IN INCHES)
 AND "W.WWWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)
 EG. 0.063" THICK SHEET = M7075T6S.063
 EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500
 .TTT BY 4FT BY 10FT FOR SHEET

RELEASED
 2017 JUN 19
 ECN 17-574

APPROVED

REV.	ADD. REF TO PLATE: 7075-T6/T62/T651 TEMPER AMS 4048. OPTIONAL WIDTH DIM (CARTR-148)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
DESIGN	RF	BY	DATE
DRAWN	CP	DART AEROSPACE LTD	
CHECKED	ML	DRAWING NO. HAWKESBURY, ONTARIO, CANADA	
MFG. APPR.	LL	M7075T6S	
APPROVED	WM	REV. B	
DE APPR.	DS	7075-T6 SHEET/PLATE SPEC	
DATE	17.05.05	SHEET 1 OF 1	

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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M70751651-250X2.750
 DATE: FEB 22 2018

PO / BATCH NO.: 038929/5044631

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.250
 THICKNESS RECEIVED: 1.250
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)		COMMENTS
SURFACE DAMAGE	Y	(N)	
CORRECT FINISH	(Y)	N	
CORROSION	Y	(N)	
CORRECT GRAIN DIRECTION	(Y)	N	
CORRECT MATERIAL PER M-DRAWING	(Y)	N	QA-250/12
CORRECT THICKNESS	(Y)	N	
PHOTO REQUIRED	Y	(N)	
CORRECT REF # TO LINK CERT	(Y)	N	Hot # 9408934
CORRECT MATERIAL IDENTIFICATION	(Y)	N	
CORRECT M# ON THE MATERIAL	(Y)	N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y	(N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y	(N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
TYPE OF MATERIAL	HRC	HRB	DUR A	DUR D	WEBSTER
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS 11</u> DATE: <u>9-89 FEB 22 2018</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
OR AMS 4045
OR ASTM B209

OR

PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE

SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR AMS 4048 / 4049
OR ASTM B209

PART NUMBER: M7075T6S | TTT | X | W.WWW |
THK | WIDTH

WHERE "TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)

EG. 0.063" THICK SHEET = M7075T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500
PREFERRED SIZE: .TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19
ECN 17-574

APPROVED

B	ADD. REF. TO "PLATE" T651" TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CAR16-149)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
REV. B SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC			
SCALE NTS			
DATE 17.05.05			
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MATERIAL RECEIPT INSPECTION FORM

MATERIAL: M7025T6S1.000X5.000
 DATE: FEB 22 2018

PO / BATCH NO: 038929/5044630

MATERIAL CERT REC'D: yes
 QUANTITY RECEIVED: 12'
 QUANTITY INSPECTED: 12'
 QUANTITY REJECTED: 0

THICKNESS ORDERED: 1.000
 THICKNESS RECEIVED: 1.000
 SHEET SIZE ORDERED: N/A
 SHEET SIZE RECEIVED: N/A

DESCRIPTION	NCR (Check Y/N)	COMMENTS
SURFACE DAMAGE	Y (N)	
CORRECT FINISH	(Y) N	
CORROSION	Y (N)	
CORRECT GRAIN DIRECTION	(Y) N	
CORRECT MATERIAL PER M-DRAWING	(Y) N	QG-A-250/12
CORRECT THICKNESS	(Y) N	
PHOTO REQUIRED	Y (N)	
CORRECT REF # TO LINK CERT	(Y) N	Heat # 9400659
CORRECT MATERIAL IDENTIFICATION	(Y) N	
CORRECT M# ON THE MATERIAL	(Y) N	
DOES THIS MATERIAL REQUIRE ENGINEERING SIGN OFF	Y (N)	
DOES THIS REQUIRE AN EXTRUSION REPORT	Y (N)	

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK. RECORD RESULTS BELOW					
	HRC	HRB	DUR A	DUR D	WEBSTER
TYPE OF MATERIAL					
SIZE OF TEST SAMPLE					
HARDNESS / DUROMETER READING					

testers located in the Quality Office

QC 18 INSPECTION		ENGINEERING SIGNOFF (if required)	
INSPECTED BY: <u>DAS</u> <u>11</u> DATE: <u>9-89</u> <u>FEB 22 2018</u>	SIGNED OFF BY: _____ DATE: _____		

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in

SPECIFICATION CONTROL DRAWING

A PURCHASE MATERIAL: 7075-T6/T62/T651 ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/12 OR AMS-QQ-A-250/12
OR AMS 4048
OR ASTM B209

OR

A PURCHASE MATERIAL: 7075-T6/T62/T651 ALCLAD ALUMINUM SHEET OR PLATE
SPECIFICATION: QQ-A-250/13 OR AMS-QQ-A-250/13
OR AMS 4048 / 4049
OR ASTM B209

A PART NUMBER: M7075T6S | TTT | X | W | WWW |
THK | WIDTH |

A WHERE "TTT" = THICKNESS (IN INCHES)
AND "W.WWW" = WIDTH (IN INCHES, OPTIONAL, FOR SPECIFYING CUT PLATE)
EG. 0.063" THICK SHEET = M7075T6S.063
EG. 3.5" WIDE BY 0.500" THICK PLATE = M7075T6S.500X3.500

A PREFERRED SIZE: . TTT BY 4FT BY 10FT FOR SHEET

RELEASED

2017 JUN 19
ECN 17-574

B	ADD. REF. TO "PLATE", T651 TEMPER, AMS 4048, OPTIONAL WIDTH DIM (CART-146)	CP	17.05.05
A	NEW ISSUE	RF	10.11.08
REV.	DESCRIPTION	BY	DATE
DESIGN	RF		
DRAWN	CP		
CHECKED	ML		
MFG. APPR.	LL		
APPROVED	WM		
DE APPR.	DS		
DATE	17.05.05		
DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA			
DRAWING NO. M7075T6S			
REV. B SHEET 1 OF 1			
TITLE 7075-T6 SHEET/PLATE SPEC			
SCALE NTS			
COPYRIGHT © 2010 BY DART AEROSPACE LTD			
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS UNDERSTANDING THAT IT IS NOT TO BE USED FOR ANY PURPOSE OTHER THAN THAT FOR WHICH IT WAS SPECIFICALLY SUPPLIED BY DART AEROSPACE LTD.			

APPROVED



CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

SHIP TO
A M CASTLE & CO.
14001 ORANGE AVE
PARAMOUNT CA
90723
US

SOLD TO
A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE 110586095 4075 INCLUSION Serial:20171025-0110586095 Pg 1of2

CUSTOMER PURCHASE ORDER NO. & ITEM
438535

Constellium ORDER NO.
219652

CERTIFICATION
"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."
Constellium Rolled Products Ravenswood, LLC
859 Century Road
P.O. BOX 58
RAVENSWOOD, WV 26164 USA

ALLOY 7075 **CLAD** **TEMPER** T651 **GAUGE** 1.00000 in 25.40 mm **WIDTH** 48.50000 in 1.232 mm **LENGTH** 144.50000 in 3,670 mm

ITEM ORDERED
SPEC PLATE, SAWED
MILL FINISH

CUSTOMER SPECIFICATION
AMS 4045K

PART NUMBER
752188

B/L NUMBER
89188

DATE SHIPPED
10/26/2017

WT. SHIPPED
2100.000 LB

NO. OF PIECES
000003

GOVT. CONTRACT NO.

Steve Good - Laboratory Manager

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A
AMS QQ-A-250/12A
AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
ASTM B209-14
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
CST1006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
CAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE

Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001633226	700.000	317.514	9400659	01		
1001633226	700.000	317.514	9400659	02		
1001633226	700.000	317.514	9400659	03		

Lot: 9400659

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	62.1	82.3	73.1	73.8	13.5	13.5	

Tensile - Room Temperature (SI)

Direction	Tests	Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	566	567	504	509	13.5	13.5	





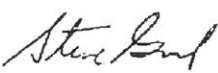
CERTIFIED TEST REPORT
Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE & CO.
14001 ORANGE AVE
PARAMOUNT CA
90723
US

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110586095		4075		INCLUSION		Serial: 20171025-0110586095		Pg 2of2	
CUSTOMER PURCHASE ORDER NO. & ITEM 438535						Constellium ORDER NO. 219662					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.00000 in 25.40 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752188			B/L NUMBER 89186		DATE SHIPPED 10/26/2017						
WT. SHIPPED 2100.000 LB		NO. OF PIECES 000003		GOVT. CONTRACT NO.							
Chemistry (Actual)											
	SI	FE	CU	MN	MG	CR	ZN	TI	ZR		
Core	0.06	0.17	1.47	0.02	2.69	0.21	5.69	0.04	0.00		
OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER											
All material contained in this lot was cast and manufactured in the USA											
QUALITY TEXTS: AMC CA-15403 R 8											
THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW. CHEMISTRY BY OES: ARKSPARK CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399 WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557 DUNS Number: 090570149; CAGE Code: 1YW/L9 Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product. "END OF CERTIFICATION"											
P-860-155D REVISED: 10 2014											



Constellium Rolled Products
Ravenswood, LLC

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OAK BROOK IL
60523
US

A M CASTLE		110606831		4075		INCLUSION		Serial:20180104-0110606831		Pg 1of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 448875						Constellium ORDER NO. 228501					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA <i>Steve Good</i> Steve Good - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114		B/L NUMBER 92452		DATE SHIPPED 01/04/2018							
WT. SHIPPED 5340.000 LB		NO. OF PIECES 000006		GOVT. CONTRACT NO.							

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A
AMS QQ-A-250/12A
AMS STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
ASTM B209-14
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE



Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001681411	890.000	403.697	9408934	01		
1001681411	890.000	403.697	9408934	02		
1001681411	890.000	403.697	9408934	03		
1001681412	890.000	403.697	9408935	01		
1001681412	890.000	403.697	9408935	02		
1001681412	890.000	403.697	9408935	03		

Lot: 9408934

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	79.5	79.9	70.1	70.3	12.5	13.0	




Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110606831		4075		INCLUSION		Serial:20180104-0110606831		Pg 2of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 448875						Constellium ORDER NO. 228501					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114		B/L NUMBER 92452		DATE SHIPPED 01/04/2018							
WT. SHIPPED 5340.000 LB		NO. OF PIECES 000006		GOVT. CONTRACT NO.							

Tensile - Room Temperature (SI)

Direction	Tests	Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	548	551	483	485	12.5	13.0	

Chemistry (Actual)

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.07	0.15	1.40	0.04	2.59	0.22	5.43	0.04	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

Lot: 9408935

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	80.7	80.7	71.1	71.4	12.5	13.0	



Constellium Rolled Products
Ravenswood, LLC

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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110606831		4075		INCLUSION		Serial:20180104-0110606831		Pg 3of3	
CUSTOMER PURCHASE ORDER NO. & ITEM 448875						Constellium ORDER NO. 228501					
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1.232 mm	LENGTH 144.50000 in 3,670 mm	CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager					
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114		B/L NUMBER 92452		DATE SHIPPED 01/04/2018							
WT. SHIPPED 5340.000 LB		NO. OF PIECES 000006		GOVT. CONTRACT NO.							

Tensile - Room Temperature (SI)								
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	556	556	490	492	12.5	13.0	

Chemistry (Actual)

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.07	0.15	1.40	0.04	2.59	0.22	5.43	0.04	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

QUALITY TEXTS:
AMC CA-15403A R 7

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.

CHEMISTRY BY OES: ARKSPARK

CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT

WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399

WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8: B557

DUNS Number: 090570149; CAGE Code: 1YWL9

Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.

"END OF CERTIFICATION"

SHIP TO:

A M CASTLE & CO
14001 ORANGE AVE
P.O. BOX 1402
PARAMOUNT, CA 90723

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

CERTIFIED TEST REPORT

Serial Number
4493592

CUSTOMER PO NUMBER: 448135-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750023	SHIP RUN/LOAD: 104155/15	GOVT CONTRACT NUMBER:
KAISER ORDER NO: 1248439-1	SHIP DATE: 13-JAN-2018	ALLOY: 7075	CLAD: BARE	TEMPER: T651
PRODUCT DESCRIPTION: Sawed Plate				
WEIGHT SHIPPED: 3231 LB	QUANTITY: 18 PCS EST.	TRUCK B/L #: 2071285	GAUGE: 0.2500 IN (6.3500 MM)	DIAMETER/WIDTH: 48.500 IN (1231.6 MM)
			LENGTH: 144.500 IN (3670.3 MM)	

MHU 2188858: LOT 245524B4: 18 pieces;

Certified Specifications

AMS 4045/RevL
CMMP 025/RevV

AMS-QQ-A-250/12/RevA

ASTM B 209/Rev14

Test Code: 1512

Lot: 245524B4

Cast 571

Drop 12

Test Results

Ingot 2

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 2 (Min:Max)	86.1 : 86.1 (594 : 594)	76.6 : 76.7 (528 : 529)	11.7 : 12.6

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.06	0.17	1.4	0.04	2.6	0.20	5.7	0.03	0.01	0.01	TOT 0.03

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS

AMC CA-15409 R 3





Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4493592

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- * has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
 - * All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
 - * was melted in the United States of America or a qualifying country per DFARS 225.B72-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
 - * has been thermally processed in compliance with AMS 2772, where applicable.
 - * is mercury free, within the limits of detection of ASTM E1215 (< 10ppm).
 - * is in compliance with RoHS 2, European Union Directive 2011/65/EU.
 - * is in compliance with European Chemical Agency, ECHA, REACH regulations, IECI No 1907/2008, and Kaiser regularly monitors these regulations for updates.
 - * is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
 - * is free of weld repair.
 - * meets the reporting requirements of EN10204, Type 3.1.
- Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

SHIP TO:

A M CASTLE & CO
14001 ORANGE AVE
P.O. BOX 1402
PARAMOUNT, CA 90723

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4481839

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

CUSTOMER PO NUMBER: 438454-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750067	SHIP RUN/LOAD: 104070/8	GOVT CONTRACT NUMBER:
KAISER ORDER NO: 1244225-1	SHIP DATE: 14-OCT-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
WEIGHT SHIPPED: 3198 LB	QUANTITY: 12 PCS EST.	TRUCK B/L #: 2089553	GAUGE: 0.3750 IN (9.5250 MM)	PRODUCT DESCRIPTION: Sawed Plate
			DIAMETER/WIDTH: 48.500 IN (1231.9 MM)	LENGTH: 144.500 IN (3670.3 MM)

MHU 2157346: LOT 245158B1: 12 pieces;

Certified Specifications

AMS 4045/RevL
CMMP 025/RevV

AMS-QQ-A-250/12/RevA

ASTM B' 209/Rev14

Test Code: 1512

Lot: 245158B1

Cast 534

Drop 25

Test Results

Ingot 5

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 3 (Min:Max)	85.5 : 85.8 (590 : 592)	75.8 : 76.0 (523 : 524)	13.3 : 13.5

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.10	0.17	1.5	0.04	2.5	0.19	5.8	0.03	0.01	0.02	TCT 0.03

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS

AMC CA-15409 R 3



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4481839

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that: All material shipped under this order:

- * has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
- * All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- * was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- * has been thermally processed in compliance with AMS 2772, where applicable.
- * is mercury free, within the limits of detection of ASTM E1215 (<1ppm).
- * is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- * is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
- * is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
- * is free of weld repair.
- * meets the reporting requirements of EN10204, Type 3.1.

Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.



JAMES HEMENWAY, TECHNICAL PROCESS MANAGER

SHIP TO: A M CASTLE & CO 14001 ORANGE AVE P.O. BOX 1402 PARAMOUNT, CA 90723
SOLD TO: AM CASTLE & CO- SOLD TO 1420 KENSINGTON RD SUITE 220 OAK BROOK, IL 60523

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4495731

CUSTOMER PO NUMBER: 449547-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750157	SHIP RUN/LOAD: 10-171/7	GOV'T CONTRACT NUMBER:
KAISER ORDER NO: 1249020-1	SHIP DATE: 29-JAN-2018	ALLOY: 7075	CLAD: BARE	TEMPER: T651
PRODUCT DESCRIPTION: Sawed Plate				
WEIGHT SHIPPED: 3816 LB	QUANTITY: 7 PCS EST.	TRUCK B/L #: 2071592	GAUGE: 0.7500 IN (19.0500 MM)	DIAMETER/WIDTH: 48.500 IN (1231.9 MM)
			LENGTH: 144.500 IN (3670.3 MM)	

MHU 2176485: LOT 247506B9: 7 pieces;

Certified Specifications

AMS 4045/RevL
ASTM B 209/Rev14
BSS 7055/RevB
DPS 4.713/RevAK
PS 21211/RevP

AMS-00-A-250/12/RevA
ASTM B 594/Rev13
CMMP 025/RevV
GAMPS 9101/RevB/AmdSCN1

AMS-STD-2154/RevC
BAC 5439/RevJ
CSTI 006/RevE
GSS16100/RevG/Amd1

Test Code: 1512

Lot: 247506B9

Cast 577

Drop 04

Test Results
Ingot 1



Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 2 (Min:Max)	84.1 : 84.3 (580 : 581)	74.8 : 75.2 (516 : 519)	13.4 : 13.5

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.08	0.17	1.5	0.04	2.5	0.19	5.9	0.02	0.01	0.01	TOT 0.04

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS
AMC CA-15403 R 8

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4495731

TEST NOTES

Metal represented by this test report was 100% Type I (immersion) ultrasonically tested from one side with 3mm dead zones top and bottom and meets the Class A and Class B requirements of all specifications referenced on this test report. No surface marking of sonic indications is performed.

CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:

- * has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.
 - * All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
 - * was melted in the United States of America or a qualifying country per OFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of OFARS 252.225 for domestic content.
 - * has been thermally processed in compliance with AMS 2772, where applicable.
 - * is mercury free, within the limits of detection of ASTM E1215 1<1 ppm).
 - * is in compliance with RoHS 2, European Union Directive 2011/65/EU.
 - * is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
 - * is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.
 - * is free of weld repair.
 - * meets the reporting requirements of EN10204, Type 3.1.
- Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.



JAMES HEMENWAY, TECHNICAL PROCESS MANAGER



Constellium Rolled Products
Ravenswood, LLC

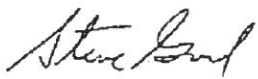
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A M CASTLE & CO.
14001 ORANGE AVE.
PARAMOUNT CA
90723
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A M CASTLE

1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE		110606831		4075		INCLUSION		Serial: 20180104-0110606831		Pg 1 of 3	
CUSTOMER PURCHASE ORDER NO. & ITEM 448875						Constellium ORDER NO. 228501					
ALLOY 7075		CLAD		TEMPER T651		GAUGE 1.25000 in 31.75 mm		WIDTH 48.50000 in 1,232 mm		LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH											
CUSTOMER SPECIFICATION AMS 4045K											
PART NUMBER 752114				B/L NUMBER 92452				DATE SHIPPED 01/04/2018			
WT. SHIPPED 5340.000 LB				NO. OF PIECES 000006				GOVT. CONTRACT NO.			
CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager											

ALL LOTS ON THIS CERTIFICATION ALSO CONFORM TO THE FOLLOWING REQUIREMENTS:

ASTM B594 REV 13 2013 100% SONIC W/ 0.125" DEADZONE Class A
AMS QQ-A-250/12A
AMS-STD-2154A 2012 TYPE1 CLASS A 100% SONIC MINUS DEADZONE
ASTM B209-14
BSS-7055B 2013 CLASS A 100% SONIC TESTED MINUS DEADZONE
CSTI006 REV E 2011 CLASS A 100% SONIC MINUS DEADZONE
DPS 4.713 REV AK 2012 CLASS A 100% SONIC MINUS DEADZONE
GAMPS 9101 REV B 2006 CLASS A 100% SONIC MINUS DEADZONE
PS 21211P 2010 CLASS A 100% SONIC MINUS DEADZONE



Load Details

Package	Net Lbs	Kg	Lot	Piece	Serial	Parent Lot
1001681411	890.000	403.697	9408934	01		
1001681411	890.000	403.697	9408934	02		
1001681411	890.000	403.697	9408934	03		
1001681412	890.000	403.697	9408935	01		
1001681412	890.000	403.697	9408935	02		
1001681412	890.000	403.697	9408935	03		

Lot: 9408934

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	79.5	79.9	70.1	70.3	12.5	13.0	



Constellium Rolled Products
Ravenswood, LLC

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90723
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A M CASTLE
1420 KENSINGTON ROAD, SUITE 220
OAK BROOK IL
60523
US

A M CASTLE 110606831 4075 INCLUSION Serial:20180104-0110606831 Pg 2of3

CUSTOMER PURCHASE ORDER NO. & ITEM
448875

Constellium ORDER NO.
228501

CERTIFICATION

"Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination."
Constellium Rolled Products Ravenswood, LLC
859 Century Road
P.O. BOX 68
RAVENSWOOD, WV 26164 USA

ALLOY	CLAD	TEMPER	GAUGE	WIDTH	LENGTH
7075		T651	1.25000 in 31.75 mm	48.50000 in 1,232 mm	144.50000 in 3,670 mm

ITEM ORDERED
SPEC PLATE, SAWED
MILL FINISH

CUSTOMER SPECIFICATION
AMS 4045K

PART NUMBER
752114

B/L NUMBER
92452

DATE SHIPPED
01/04/2018

WT. SHIPPED
5340.000 LB

NO. OF PIECES
000006

GOVT. CONTRACT NO.

Steve Good - Laboratory Manager

Tensile - Room Temperature (SI)

Direction	Tests	Ultimate (N/MM ²)		Yield (N/MM ²)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	548	551	483	485	12.5	13.0	

Chemistry (Actual)

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.07	0.15	1.40	0.04	2.59	0.22	5.43	0.04	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

Lot: 9408935

Tensile - Room Temperature (US)

Direction	Tests	Ultimate (KSI)		Yield (KSI)		Elongation (%)		Report
		Min	Max	Min	Max	Min	Max	
LT	02	80.7	80.7	71.1	71.4	12.5	13.0	



Constellium Rolled Products
Ravenswood, LLC

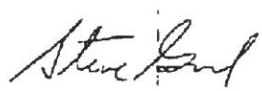
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OAK BROOK IL
60523
US

A M CASTLE 110606831 4075 INCLUSION Serial:20180104-0110606831 Pg 3of3

CUSTOMER PURCHASE ORDER NO. & ITEM 448875				Constellium ORDER NO. 228501		CERTIFICATION "Constellium Rolled Products, hereby certifies that metal shipped under this order has been inspected and found in conformance with the requirements of the applicable specifications as indicated herein. Any warranty is limited to that shown on Constellium Rolled Products' standard General Terms and Conditions of Sales. Test reports are on file, subject to examination." Constellium Rolled Products Ravenswood, LLC 859 Century Road P.O. BOX 68 RAVENSWOOD, WV 26164 USA  Steve Good - Laboratory Manager
ALLOY 7075	CLAD	TEMPER T651	GAUGE 1.25000 in 31.75 mm	WIDTH 48.50000 in 1,232 mm	LENGTH 144.50000 in 3,670 mm	
ITEM ORDERED SPEC PLATE, SAWED MILL FINISH						
CUSTOMER SPECIFICATION AMS 4045K						
PART NUMBER 752114		B/L NUMBER 92452		DATE SHIPPED 01/04/2018		
WT. SHIPPED 5340.000 LB		NO. OF PIECES 000006		GOVT. CONTRACT NO.		

Tensile - Room Temperature (SI)								
		Ultimate (N/MM2)		Yield (N/MM2)		Elongation (%)		Report
Direction	Tests	Min	Max	Min	Max	Min	Max	
LT	02	556	556	490	492	12.5	13.0	

Chemistry (Actual)

	SI	FE	CU	MN	MG	CR	ZN	TI	ZR
Core	0.07	0.15	1.40	0.04	2.59	0.22	5.43	0.04	0.00

OTHERS-EACH: .05 MAX. OTHERS TOTAL: .15 MAX. AL REMAINDER

All material contained in this lot was cast and manufactured in the USA

QUALITY TEXTS:
AMC CA-15403A R 7

THIS TEST REPORT SHALL NOT BE REPRODUCED EXCEPT IN FULL, WITHOUT THE WRITTEN APPROVAL OF THE LABORATORY OR AUTHORIZED QUALITY DELEGATE. THE RECORDING OF FALSE, FICTITIOUS, OR FRAUDULENT STATEMENTS OR ENTRIES ON THE CERTIFICATE MAY BE PUNISHED AS A FELONY UNDER FEDERAL LAW.
CHEMISTRY BY OES: ARKSPARK
CHEMISTRIES REPORTED IN PERCENTAGE BY WEIGHT
WHEN FRACTURE TOUGHNESS TEST REQUIRED, TESTED PER ASTM E399
WHEN TENSILE TEST REQUIRED, TESTED PER ASTM E8; B557
DUNS Number: 090570149; CAGE Code: 1YW19
Mercury is not a normal contaminant in aluminum alloys and neither mercury nor any of its compounds were utilized in the manufacture of our product.
"END OF CERTIFICATION"

SHIP TO:

A M CASTLE & CO
14001 ORANGE AVE
P.O. BOX 1402
PARAMOUNT, CA 90723

KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215

Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number

4481839

SOLD TO:

AM CASTLE & CO- SOLD TO
1420 KENSINGTON RD
SUITE 220
OAK BROOK, IL 60523

CUSTOMER PO NUMBER: 438454-1	WORK PACKAGE:	CUSTOMER PART NUMBER: 750067	SHIP RUN/LOAD: 104070/8	GOVT CONTRACT NUMBER:
KAISER ORDER NO: 1244225-1	SHIP DATE: 14-OCT-2017	ALLOY: 7075	CLAD: BARE	TEMPER: T651
WEIGHT SHIPPED: 3198 LB	QUANTITY: 12 PCS EST.	TRUCK B/L #: 2069553	GAUGE: 0.3750 IN (9.5250 MM)	PRODUCT DESCRIPTION: Sawed Plate
			DIAMETER/WIDTH: 48.500 IN (1231.9 MM)	LENGTH: 144.500 IN (3670.3 MM)

MHU 2157346: LOT 245158B1: 12 pieces;

Certified Specifications

AMS 4045/RevL
CMMP 025/RevV

AMS-QQ-A-250/12/RevA

ASTM B 209/Rev14

Test Code: T512

Lot: 245158B1

Cast 534

Drop 25

Test Results

Ingot 5

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

Tensile:	Temper	Dir / # Tests	Ultimate KSI (MPA)	Yield KSI (MPA)	Elongation %
	T651	LT / 3 (Min:Max)	95.5 : 85.8 (590 : 592)	75.8 : 76.0 (523 : 524)	13.3 : 13.5

(ASTM E1251)

Chemistry:	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER
Actual(wt%)	0.10	0.17	1.5	0.04	2.5	0.19	5.8	0.03	0.01	0.02	TOT 0.03

ALLOY LIMITS

	SI	FE	CU	MN	MG	CR	ZN	TI	V	ZR	OTHER	MAX
7075												
MIN(wt%)	0.00	0.00	1.2	0.00	2.1	0.18	5.1	0.00	0.00	0.00	EACH	0.05
MAX(wt%)	0.40	0.50	2.0	0.30	2.9	0.28	6.1	0.20	0.05	0.05	TOT	0.15

Aluminum Remainder

ORDER COMMENTS

AMC CA-15409 R 3



KAISER ALUMINUM

Trentwood Works - Spokane, WA 99215
Phone: (800) 367-2586

CERTIFIED TEST REPORT

Serial Number
4481839

CERTIFICATION

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- All test equipment and measuring devices are calibrated and certified in accordance with applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.
- was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.
- has been thermally processed in compliance with AMS 2772, where applicable.
- is mercury free, within the limits of detection of ASTM E1215 (< 1ppm).
- is in compliance with RoHS 2, European Union Directive 2011/65/EU.
- is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.
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- is free of weld repair.
- meets the reporting requirements of EN10204, Type 3.1.

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JAMES HEMENWAY, TECHNICAL PROCESS MANAGER